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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/981,701 | 10/17/2001 | Kyle N. Patrick | CA9 2000 0075 US1 | 7340 |

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EXAMINER

STORK, KYLE R

| ART UNIT | PAPER NUMBER |
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2178

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/981,701 | PATRICK, KYLE N. | |
| | Examiner | Art Unit | |
| | Kyle R Stork | 2178 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This office action is in response to the application filed 2001 October 17.
2. Claims 1-33 are pending. Claims 1, 17, 18, and 33 are independent claims.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 27 and 29 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 27 and 29 recites the limitation "computer readable medium" and are dependent upon claim 16 in line 1. There is insufficient antecedent basis for this limitation in the claim since claim 16 is directed toward a method.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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Section 2106 of the MPEP states:

(a) Functional Descriptive Material: "Data Structures" Representing Descriptive Material Per Se or Computer Programs Representing Computer Listings Per Se
Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions. Computer programs are often recited as part of a claim. Office personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material per se and hence nonstatutory.

Claim 33 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The applicant discloses a computer data signal. This is a data structure not embodied in a computer readable medium and is therefore descriptive material per se and is non-statutory.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-13, 15, 17-26, 28, and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coulson et al. (US 6526399, 2003) in further in view of Matloff (Emacs: The Software Engineer's "Swiss Army Knife", 1997).

As per independent claim 1, Coulson discloses the method for simplifying data comprising:

- Receiving identification of a portion of data to be hidden (column 3, lines 43-44; column 4, lines 11-14; column 4, lines 30-32: Here, the user selects the data to be hidden)
- Receiving input indication the portion is to be hidden (column 4, lines 51-53; column 5, lines 5-20: Here, the collapsed view is a hidden view; column 10, lines 26-54)
- Causing a symbol to replace the portion of data in response to the identification of the input indicating the portion it to be hidden (column 4, lines 51-53; column 5, lines 5-20; column 10, lines 26-54)

Coulson fails to specifically disclose the data as a program listing. Matloff discloses a program listing (page 1).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Coulson's method of grouping and hiding data with Matloff's method of the data being a program listing, since it would have allowed a user to generate a summary of the hidden data (Coulson: column 1, lines 36-37).

As per dependent claim 2, Coulson and Matloff disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Coulson further discloses the method wherein receiving the identifications comprises receiving a start position and end position identifying the beginning and end respectively of the portion of the data to be hidden (column 4, lines 11-49; column 5, lines 5-20; Figures 9-10: Here, the selected portions of data are grouped into metacells with a start and end).

As per dependent claim 3, Coulson and Matloff disclose the limitations similar to those in claim 2, and the same rejection is incorporated herein. Coulson further discloses the method further comprising determining the start position and end position (column 4, lines 11-49; column 5, lines 5-20; Figures 9-10).

As per dependent claim 4, Coulson and Matloff disclose the limitations similar to those in claim 3, and the same rejection is incorporated herein. Coulson further discloses the method wherein determining the start position and the end position comprises identifying a portion of the data, which is in a common context (column 4, lines 11-49; column 5, lines 5-20; Figures 9-10).

As per dependent claim 5, Coulson and Matloff disclose the limitations similar to those in claim 4, and the same rejection is incorporated herein. Coulson further discloses the method wherein determining further comprises identifying a context of the portion, of the data, at a cursor position, the context being the common context (column 4, lines 11-49; column 5, lines 5-20; Figures 9-10: Here, selected an entire row/column of data is selecting all data in the common context).

As per dependent claim 6, Coulson and Matloff disclose the limitations similar to those in claim 5, and the same rejection is incorporated herein. Coulson further discloses the method wherein identifying a context comprises locating a context start marker in proximity to the cursor, determining a hierarchical level of the context start marker and locating a context end marker for the context identified by the context start marker (column 4, lines 11-49; column 5, lines 5-20; column 5, lines 42-48; column 8, lines 23-28).

As per dependent claim 7, Coulson and Matloff disclose the limitations similar to those in claim 3, and the same rejection is incorporated herein. Coulson further discloses the method wherein causing comprises associating the portion of the program listing with the symbol (column 10, lines 27-54; Figures 9-10: Here, the data from the metacells in Figure 9 is associated with the symbol occupying the corresponding metacells in Figure 10).

As per dependent claim 8, Coulson and Matloff disclose the limitations similar to those in claim 7, and the same rejection is incorporated herein. Coulson further discloses the method wherein associating comprises associating the start position and the end position of the portion of the data with the symbol (column 10, lines 27-54; Figures 9-10).

As per dependent claim 9, Coulson and Matloff disclose the limitations similar to those in claim 3, and the same rejection is incorporated herein. Coulson further discloses the method wherein associating comprises producing a hide record identifying the start position and the end position (column 10, lines 27-54).

As per dependent claim 10, Coulson and Matloff disclose the limitations similar to those in claim 3, and the same rejection is incorporated herein. Coulson further discloses the method wherein causing comprises showing the symbol instead of characters between the start position and the end position of the data when the characters would otherwise be shown (Figures 9-10).

As per dependent claim 11, Coulson and Matloff disclose the limitations similar to those in claim 10, and the same rejection is incorporated herein. Coulson further discloses the method wherein showing the symbol comprises loading an index to the symbol at a position in a display buffer which would normally be occupied by the portion to be hidden (Figures 9-10; column 10, lines 27-54).

As per dependent claim 12, Coulson and Matloff disclose the limitations similar to those in claim 10, and the same rejection is incorporated herein. Coulson further discloses the method further comprising location a hide record identifying the start position and the end position (column 10, lines 27-54).

As per dependent claim 13, Coulson and Matloff disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Coulson further discloses the method further comprising redisplaying at least one hidden portion of the data (column 10, lines 27-54: Here, data can be unhidden; column 5, lines 5-20: Here, data can be expanded to be redisplayed).

As per dependent claim 15, Coulson and Matloff disclose the limitations similar to those in claim 1, and the same rejection is incorporated herein. Coulson further

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discloses the method further comprising redisplaying all hidden portions of the data (column 10, lines 27-54; column 5, lines 5-20).

As per independent claim 17, the applicant discloses an apparatus for executing the method of claim 1. Coulson further discloses a processor having an output device and providing for display of data (Figure 1). Claim 17 is similarly rejected under Coulson and Matloff.

As per independent claim 18, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 1. Claim 18 is similarly rejected under Coulson and Matloff.

As per dependent claim 19, Coulson and Matloff discloses the limitations similar to those in claim 18, and the same rejection is incorporated herein. Coulson further discloses the medium further comprising instructions for directing the process circuit to determine a start position and an end position identifying beginning and end points of a portion of the data which is to be hidden (column 4, lines 11-49; column 5, lines 5-20; Figures 9-10).

As per dependent claim 20, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 4. Claim 20 is similarly rejected under Coulson and Matloff.

As per dependent claim 21, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 5. Claim 21 is similarly rejected under Coulson and Matloff.

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As per dependent claim 22, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 6. Claim 22 is similarly rejected under Coulson and Matloff.

As per dependent claim 23, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 7. Claim 23 is similarly rejected under Coulson and Matloff.

As per dependent claim 24, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 8. Claim 24 is similarly rejected under Coulson and Matloff.

As per dependent claim 25, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 9. Claim 25 is similarly rejected under Coulson and Matloff.

As per dependent claim 26, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 10. Claim 26 is similarly rejected under Coulson and Matloff.

As per dependent claim 28, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 13. Claim 28 is similarly rejected under Coulson and Matloff.

As per dependent claim 30, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 15. Claim 30 is similarly rejected under Coulson and Matloff.

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As per dependent claim 31, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 16. Claim 31 is similarly rejected under Coulson and Matloff.

As per independent claim 32, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 17. Claim 32 is similarly rejected under Coulson and Matloff.

As per independent claim 33, the applicant discloses the computer data signal comprising the method of claim 1. Claim 33 is similarly rejected under Coulson and Matloff.

10. Claims 14, 16, 27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coulson and Matloff in further in view of Arcuri et al. (US 6121968, 2000).

As per dependent claim 14, Coulson and Matloff disclose the limitations similar to those in claim 13, and the same rejection is incorporated herein. Coulson and Matloff fail to specifically disclose the method further comprising deleting a record associated with the data which has been hidden. Arcuri discloses the method further comprising deleting a record (Figure 4b, Item 470: Here, as an item is no longer used, the item is removed from the menu).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Coulson and Matloff's method of associating data with Arcuri's method of deleting associations, since it would have allowed a user to

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conserve system resources by freeing memory that contained data references that were no longer needed.

As per dependent claim 16, Coulson and Matloff disclose the limitations similar to those in claim 15, and the same rejection is incorporated herein. Coulson and Matloff fail to specifically disclose the method further comprising deleting a plurality of records associated with the data which has been hidden. Arcuri discloses the method further comprising deleting records (Figure 4b, Item 470: Here, as an item is no longer used, the item is removed from the menu).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Coulson and Matloff's method of associating data with Arcuri's method of deleting associations, since it would have allowed a user to conserve system resources by freeing memory that contained data references that were no longer needed.

As per dependent claim 27, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 14. Claim 27 is similarly rejected under Coulson, Matloff, and Arcuri.

As per dependent claim 29, the applicant discloses the computer readable medium with executable instructions for executing the method of claim 16. Claim 29 is similarly rejected under Coulson, Matloff, and Arcuri.

Conclusion

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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ryan et al. (US 6216143): Discloses generating coded software traces.
- Kakegawa (US 5572233): Discloses searching and displaying data according to corresponding to a pictorial symbol data.
- Pritt (US 5689717): Discloses annotations on a display without overlap.
- Kupiec (US 2002/0010719): Discloses generating document summaries with location information.
- Walden et al. (US 6421065): Discloses automatic hide/show function.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle R Stork whose telephone number is (571) 272-4130. The examiner can normally be reached on Monday-Friday (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (703) 308-5465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kyle Stork
Patent Examiner
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